

INSTRUCTIONS
FORM F18a
INTERNAL FLOATING ROOF STORAGE TANKS

Department of Environmental Quality
Division of Air Quality
150 N. 1950 W.
Salt Lake City, UT 84116
Telephone (801) 536-4000

Storage Vessel ID	Provide the identification number the company associates with the tank.
SCC	Enter the appropriate Source Classification Code (SCC). See <i>page 16 of the General Instructions for explanation.</i>
Type of Material Stored	List the type of liquid stored in the tank (i.e., gasoline, crude oil, jet naphtha, etc.). Please make sure that the products stored are listed in Tables 7.1-2, 3&5 of AP-42, 5th edition. If they are not listed, use the Supplement Form 18-19 to provide data for TANKS 4.09D (<i>see Note</i>).
Storage Capacity	Storage capacity should be in 10 ³ gal.
Tank Diameter	Tank diameter units should be in feet.
Self-supporting Roof	Enter "Y" if the tank roof has no supporting columns; enter "N" if the tank has supporting columns.
Number of Columns (optional)	Enter the number of columns if applicable.
Column Diameter	Enter the average column diameter in ft: use 1.1 ft for 9x7 inch built-up columns. use 0.7 ft for 8 inch diameter pipe columns. use 1.0 if no column construction details are known.
Shell Condition	Describe the condition of the tank (i.e., light rust, dense rust, or gunite lining).
Shell Color/Shade	Describe the color and shade combination of the paint on the shell of the tank (i.e., white/white, aluminum/specular, aluminum/diffuse, gray/light, gray/medium, and red/primer).
Shell Paint Condition	Describe the condition of the paint on the sides (shell) of the tank (i.e., good or poor).
Roof Color/Shade	Describe the color and shade combination of the paint on the roof. See Shell Color/Shade above for combinations.
Roof Paint Condition	Describe the condition of the paint on the tank roof (i.e., good or poor).
Primary Seal	Report the type of primary rim seal (i.e., vapor-mounted or liquid-mounted).

Secondary Seal	Enter "Y" if the tank has a secondary seal; enter "N" if there is no secondary seal.
Deck Type	Describe the type of the deck (i.e., bolted or welded).
Deck Fitting	Choose the following category that defines the deck fittings for the tank: typical, controlled, or detail.
Deck Construction	This applies only to bolted decks. Choose one of the following options by entering a number: (1) continuous sheet construction 5 ft wide. (2) continuous sheet construction 6 ft wide. (3) continuous sheet construction 7 ft wide. (4) Rectangular panel construction 5x7.5 ft. (5) Rectangular panel construction 5x12 ft.
Deck Seam Length (optional)	This applies only to bolted decks. Provide the deck seam length in feet.
Avg. Surface Temp. (optional)	Enter average surface temperature of the liquid in °F.
Surface Vapor Press. (optional)	Provide average vapor pressure of the liquid in pounds per square inch absolute (Psia).
Molecular Weight	Provide the molecular weight of the liquid stored in the tank.
Annual Turnovers	Calculate the number of the turnovers per year by dividing the net throughput by the storage capacity.
AnnualTotal	Provide annual total throughput in 10 ³ gal.
Standing Loss	Report all standing losses which include rim seal, deck-fitting, and deck seam losses in tons per year.
Withdrawal Loss	Report withdrawal loss in tons per year.
Total Loss	Enter the sum of standing loss and withdrawal loss.
Estimate Code	Provide the method code for quantifying actual emissions of each pollutant. The valid method codes are listed in Table 6, page 27 of the General Instructions. If estimate code 8 (EPA Emission Factor) is used, also include the specific AP-42 section used in the Comments field; see page 18 for a link to AP-42.
Vapor Recovery % Ctrl. Eff.	Provide vapor recovery efficiency (%), if the tank has a recovery system.
Comment	Provide any additional information necessary for calculation of emissions.

Note:

The U.S. EPA recommends the use of the latest version of TANKS (currently version 4.09D) for the estimation of emissions from storage tanks. TANKS is designed for use by local, state, and federal agencies, environmental consultants, and others who need to calculate VOC emissions from organic liquid storage tanks.

TANKS is a Windows-based computer software program that computes estimates of volatile organic compound (VOC) emissions from fixed- and floating-roof storage tanks. TANKS is based on the emission estimation procedures from Chapter 7 of EPA's Compilation Of Air Pollutant Emission Factors (AP-42), plus recent updates from the American Petroleum Institute. A user's manual, included with the program, explains the many features and options of TANKS. The program includes on-line help for every screen.

The software can be downloaded from the EPA web page in a ZIP format from:

<http://www.epa.gov/ttn/chief/software/tanks/index.html>

or provide the necessary data on Supplement Form 18-19, and DAQ will run the software to estimate the emissions.

Be aware that if you choose to run TANKS 4.09D, you must include the full output of TANKS 4.09D with your emissions inventory submittal.